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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/308,562	07/16/1999	DUNCAN AKPORIAYE	35/101053	6349 33
7590 11/19/2003 WENDEROTH LIND & PONACK 2033 K STREET NW SUITE 800 WASHINGTON, DC 20006			EXAMINER COLE, LAURA C	
			ART UNIT 1744	PAPER NUMBER

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/308,562

Applicant(s)

AKPORIAYE ET AL.

Examiner

Laura C Cole

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-134 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 18, 19, 22-40, 43, 44, 47-59, 62-64, 66-79, 83-85, 89, 90, 93-102, 105-119 and 122-133 is/are rejected.
- 7) ☒ Claim(s) 20, 21, 41, 42, 45, 46, 60, 61, 65, 80-82, 86-88, 91, 92, 103, 104, 120, 121 and 134 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the rigid frame enclosing the block (Claim 57) and the frame enclosing the closure (Claims 75 and 77) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 20-21, 41-42, 60-61, 80-82, 86-88, 103-104, and 120-121 are objected to because of the following informalities: Claim 20, 41, 60, 80, 86, 103, and 120 each require the plural openings to comprise perforations that extend completely through the block, however in Claim 18 (which all of the claims depend from) requires the block to be "defining plural openings that are closed at one end of the plural openings and are open at another end of said plural openings." How can the openings extend through the block if one end is closed? Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1744

3. Claims 105, 107-113, and 115 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 105, 107, and 109-113 each recite the limitation "said seal" in Line 1 (of each claim respectively). There is insufficient antecedent basis for this limitation in the claim.

Claims 107-113 each recite the limitation "said cover member" in Line 2 (of each claim respectively). There is insufficient antecedent basis for this limitation in the claim.

Claim 108 recites the limitation "said seal" in Line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 115 recites the limitation "said cover member" in Line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Art Unit: 1744

4. Claims 18, 19, 22, 24, 27-33, 35, 57-59, 62, 64, 66-72, 75, 77-79, 89-90, 93-99, 105, 107, and 110-116 are rejected under 35 U.S.C. 102(b) as being anticipated by Sanadi, USPN 5,741,463.

Sanadi discloses an apparatus for preventing cross-contamination of multi-well test plates that comprise a block having plural openings (Figure 3 (42), Figure 4 (62), Figure 5 (79), Figure 6 (98), Figure 7 (108), Figure 8 (113), Figure 9 (134)), a closure member to seal the plural openings (Figure 3 (48), Figure 4 (65), Figure 5 (81), Figure 6 (92) and (93), Figure 7 (12) and (105), Figure 8 (112), Figure 9 (138)), a locking device to force the closure member against the block (Figure 3 (50), Figure 4 (68), Figure 8 (116), Figure 9 (140), Abstract), wherein the closure member comprises a cover member and a seal member wherein the seal member is arranged to be positioned between the cover member and the block (seal is (Figure 2 (30); Column 6 Lines 6-67), Figure 3 (45), Figure 5 (77), Figure 7A (301), Figure 9 (137)). The seal comprises a compressible or deformable material (Column 5 Lines 32-34; Column 7 Line 34; Column 9 Line 18), the seal is fixed to the cover member (when assembled as shown in all embodiments), wherein the seal member comprises plural circular disk shaped bodies that are not fixed to the cover (see embodiment of Figures 5, 5A, and 5B where (77) is a disk-shaped seal) and it is fixed to the cover when assembled but are not initially fixed to the cover (Column 9 Lines 9-25). Further, Sanadi discloses a seal member that comprises a membrane (Figure 2 (31), Figure 3 (31), Figure 6 (93), Figure 7A (303), Column 12 Lines 15-17) and is fixed to the cover when assembled but not initially fixed. There is a single closure member provided (in embodiments of Figure 3A and Figure 4).

Art Unit: 1744

The cover member comprises a rigid plate, as shown and described. Further, there is a locking device that comprises a rigid frame enclosing the block and closure member (Figure 3 (50) or Figure 9 (140)). The plural openings are not in fluid communication with each other (Abstract). Plural openings have a width wise dimension and the block includes plural protruding profiles each having a width wise dimension that is larger than the dimension of the openings (see Figure 8A).

5. Claims 18, 38, 39, 52, 117, and 118 are rejected under 35 U.S.C. 102(b) as being anticipated by Mougin, USPN 5,424,213.

Mougin discloses a method for testing the reactivity of cells that comprises a block defining plural openings (Figure 1 (4) and openings (2)) that are closed at one end (when assembled) and open at another end, a closure member (Figure 1 (5) or Figure 2 (9)), and a locking device (Figure 2 (7)) so that the openings are not in fluid communication and the plural openings define plural reaction chambers (Column 2 Lines 19-20). The fasteners (7) are screws and therefore are categorized as threaded fasteners and pass through the closure member into the block between the plural openings (see Figures). The openings are perforations and extend through the block (see Figures).

6. Claims 18, 19, 22, 24, 27, 28, 32, 36, 37, 57-59, 62, 63, 66, 67, 71, 73, 74, 77-79, 89, 90, 93, 94, 98, 100, 101, 105, 107 110, 111, and 115 are rejected under 35 U.S.C. 102(b) as being anticipated by Sanadi, USPN 5,342,581.

Sanadi discloses an apparatus for preventing cross-contamination of multi-well test plates that comprises a block defining plural openings (Figure 1 (44), Figure 5

Art Unit: 1744

(104), Figure 6, Figure 7 (152) and openings Figure 1 (48), Figure 5 (112), Figure 6 (112), Figure 7 (156)) that are closed at one end and open at another end, a closure member (Figure 1 (60), Figure 2 (96), Figure 5 (120), Figure 6), and a locking device (Figure 5 (124) and Figure 6) to keep the plural openings in a pressure tight manner at one end so as not to be in fluid communication with one another (Abstract), wherein the closure member comprises a cover member and a seal member wherein the seal member is arranged to be positioned between the cover member and the block (seal is (Figure 1 (52); Column 4 Line 51-Column 5 20), Figure 4 (88), Figure 5 (116), Figure 6 (128)). The seal comprises a compressible or deformable material (Column 5 Lines 8-12), the seal is fixed to the cover member (when assembled as shown), wherein the seal member comprises plural circular disk shaped bodies that are not fixed to the cover (see embodiment of Figures 13, 13A, and 14 where (248) is a disk-shaped seal or Figures 2 and 3 wherein (64) is a disk shaped seal; also see Column 5 Lines 12-15I) and it is fixed to the cover when assembled but are not initially fixed to the cover (Column 8 Lines 52-60). The cover comprises a rigid plate as disclosed. The closure member includes a plurality of spherically-shaped protrusions facing plural openings (in Figures 13-14). The seal comprises a polymer film (Column 5 Lines 14-15). The locking device (124) comprises a rigid frame enclosing the block (see Figure 5 and 6).

7. Claims 18, 19, 25, 26, 34, 108, and 109 are rejected under 35 U.S.C. 102(b) as being anticipated by Picozza et al., USPN 5,282,543.

Picozza et al. disclose a method a cover for an array of reaction tubes that comprises a block defining plural openings (Figure 5 (10)) that are closed at one end

Art Unit: 1744

and open at another end (Figure 5), a closure member (Figure 5 (52)), and a locking device (they are held together by friction, Column 6 Lines 12-31). The closure member comprises a cover member and a seal member that are integral in that the cover is the "first seal" between "the upper surface of the mouth of the tube and the portion of the web" and the seal is "the portion of the web around the base of the nodule" (Column 6 Lines 12-31). The seal member comprises plural spherically-shaped bodies fixed to the cover member and face the another end of the plural openings. These spherically-shaped bodies do not have to be fixed to the cover member as they may be attached adhesively (Column 5 Lines 35-39). Further, the openings are not in fluid communication with one another (Column 1 Lines 61-63, Column 2 Lines 49-51).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

Art Unit: 1744

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 38, 39, 40, 43, 44, 47, 48, 52, 54, 55, 117, 118, 122, 123, 126, 127, 131, and 133 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanadi, USPN 5,342,581 in view of Mougin, USPN 5,424,213.

Sanadi and Mougin disclose all elements above. Sanadi does not disclose the use of threaded fasteners as a locking device that pass through the block in between the locations of the plural openings.

Mougin, as stated above, does disclose the use of threaded fasteners (7) as a locking device that pass through the block in between the locations of the plural openings.

It would have been obvious for one of ordinary skill in the art to modify the locking means of Sanadi for the one that Mougin teaches as an alternative means to lock the device and additionally does not require extra surface area which is advantageous for storing.

9. Claims 38, 39, 40, 43, 44, 47-53, 117-119, 123, and 126-132 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanadi, USPN 5,741,463 in view of Mougin, USPN 5,424,213.

Sanadi and Mougin disclose all elements above. Sanadi does not disclose the use of threaded fasteners as a locking device that pass through the block in between the locations of the plural openings.

Mougin, as stated above, does disclose the use of threaded fasteners (7) as a locking device that pass through the block in between the locations of the plural openings.

It would have been obvious for one of ordinary skill in the art to modify the locking means of Sanadi for the one that Mougin teaches as an alternative means to lock the device and additionally does not require extra surface area which is advantageous for storing.

10. Claims 23, 76, 83, 102, and 106 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanadi, USPN 5,741,463.

Sanadi discloses all elements mentioned above, however does not disclose a material of which the block comprises.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to make the block from a deformable or compressible material, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

11. Claim 56 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sanadi, USPN 5,741,463 in view of Mougin, USPN 5,424,213.

Sanadi and Mougin disclose all elements mentioned above, however do not disclose a material of which the block comprises.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to make the block from a deformable or compressible material,

Art Unit: 1744

since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious engineering choice. In re Leshin, 125 USPQ 416.

12. Claims 84 and 85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanadi, USPN 5,741,463 in view of Mougin, USPN 5,424,213.

Sanadi and Mougin disclose all elements above including Sanadi providing the teaching of a frame surrounding the block to prevent deformation and Mougin providing the teaching of including threaded fasteners.

It would have been obvious for one of ordinary skill in the art to implement the locking means of Mougin in addition to the frame that Sanadi teaches as an alternative means to lock the device secure the substance so as to prevent fluid communication.

Allowable Subject Matter

13. Claims 20-21, 41-42, 45, 46, 60-61, 65, 80-82, 86-88, 91-92, 103-104, and 134 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

14. The following is a statement of reasons for the indication of allowable subject matter: The prior art made of reference does not include the combination of a multi-autoclave comprising, a block, a closure member, a locking device (to prevent fluid communication), a cover, a seal, and that the openings extend completely through the block. Further there is no suggestion to combine a multi-autoclave comprising a block, closure member, locking device (to prevent fluid communication), a locking device

Art Unit: 1744

including threaded fasteners, and a seal member comprising spherically shaped bodies.

Nor is there a suggestion to combine a multi-autoclave comprising a block, closure member, locking device (to prevent fluid communication), a frame surrounding the block, and a seal member comprising spherically shaped bodies.

Applicants Arguments

15. In the response filed 07 August 2003 (and 16 September 2003) the Applicant argues that:

- A. None of the references relied upon teach or suggest a multi-autoclave.
- B. Fernwood et al. show the apertures as being in fluid communication with each other.
- C. Picozza et al. is silent as to whether or not fluid communication exists with each other.
- D. Kolb et al. shows the apertures as being in fluid communication with each other.
- E. Manns shows the apertures as being in fluid communication with each other.
- F. Mougin shows the apertures as being in fluid communication with each other.
- G. There is no description as to whether the device in the Sanadi references can function as a multi-autoclave.
- H. Fernwood et al., Manns, Kolb et al., and Picozza et al. do not include "a locking device to force said closure member against said block such that said closure member seals said plural openings in a pressure tight manner. "
- I. Sanadi teaches away from using a threaded fastener.

J. If it would have been obvious to substitute the threaded fasteners of the clamps, it would not allow the device to function as a multi-autoclave.

K. None of the references relied upon teach or suggest a frame.

L. In view of Mougin it would not be obvious to substitute fasteners for clamps of Sanadi because it would remove the Sanadi device of the quick and easy disassembly.

Response to Arguments

17. Applicant's arguments B, D, and E, see Paper No. 29, filed 07 August 2003 and 16 September 2003, with respect to Manns have been fully considered and are persuasive. The rejection of Manns has been withdrawn.

18. Applicant's arguments A, C, and F-L filed 07 August 2003 and 16 September 2003 have been fully considered but they are not persuasive.

A. The recitation of the "multi-autoclave" is in the preamble of the claim, the structure that is claimed may be general to similar chemical apparatus unless there is structure claimed that would differentiate between a "multi-autoclave" and a different device. "[A] claim preamble has the import that the claim as a whole suggests for it." *Bell Communications Research, Inc. v. Vitalink Communications Corp.*, 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995).

C. Picozza et al. does disclose that each aperture is individually sealed, thereby preventing fluid communication. See above and specifically Column 2 Lines 49-50.

F. When secured by the screws, the device of Mougin is "leaktight." See Column 2 Lines 19-20

G. As stated above, "[A] claim preamble has the import that the claim as a whole suggests for it." Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). Further, Sanadi comprises all of the limitations of the claims. Sanadi discloses that their device is a "multi-well test plate." Again, there is nothing structural to differentiate Sanadi from the claimed invention.

H. Picozza et al. does include "a locking device" being that they are held together by friction, Column 6 Lines 12-31, wherein the locking device does seal the openings in a manner.

I. Sanadi teaches a variety of fasteners, including the frame "50" in addition to quick release arms "7". It would have been obvious to substitute threaded fasteners as Mougin teaches since threaded fasteners are well known and are readily available. Further, by using securing means such as threaded fasteners, space needed for "flexible arms" can be eliminated.

J. As stated above, "[A] claim preamble has the import that the claim as a whole suggests for it." Bell Communications Research, Inc. v. Vitalink Communications Corp., 55 F.3d 615, 620, 34 USPQ2d 1816, 1820 (Fed. Cir. 1995). Further, Sanadi comprises all of the limitations of the claims. Sanadi discloses that their device is a "multi-well test plate." Again, there is nothing structural to differentiate Sanadi from the claimed invention. Examiner does not understand how if the threaded fasteners were in place of the clamps how the device would not function as a multi-autoclave.

K. As mentioned above, both Sanadi references teach a frame. The frame of the Applicant's invention has not been described or displayed beyond the term "frame."

L. Sanadi teaches a variety of fasteners, including the frame "50" in addition to quick release arms "7". It would have been obvious to substitute threaded fasteners as Mougin teaches since threaded fasteners are well known and are readily available. Further, by using securing means such as threaded fasteners, space needed for "flexible arms" can be eliminated.

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C Cole whose telephone number is (703) 305-

Art Unit: 1744

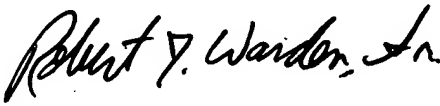
7279. The examiner can normally be reached on Monday-Thursday, 7am - 4:30pm, alternating Fridays. After December 17th, the Examiner's office will be located at the new USPTO site in Alexandria, Virginia. After this projected date, you may reach Examiner Laura Cole by phone at 571-272-1272 or by fax at 571-273-1272.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Warden can be reached on (703) 308-2920 (or after December 17th may be reached at 571-272-1281). The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

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LCC

14 November 2003


ROBERT J. WARDEN, SR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700